

The birds of Mark Catesby's *The natural history of Carolina, Florida and the Bahama Islands*

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The plates of Mark Catesby's *The natural History of Carolina* . . . contain many of the first satisfactory descriptions of North American birds. Indeed, many formed the basis for binomials in Linnaeus' *Systema Naturae* (1758), and today these birds bear Linnaeus' names based on Catesby's engravings and descriptions. Less well known is that the original watercolours on which the engravings in the book were based were purchased by King George III in 1768 and are housed in the Royal Library in Windsor Castle. They were discussed by McBurney (1997). In several cases the originals differ considerably from the final plate and in a few depict birds omitted from the published version. Despite the scrutiny to which the book has been subjected, a few of the birds Catesby depicted have never been satisfactorily identified. Catesby's birds have previously been discussed, notably by Allen (1951) and Feduccia (1985); the principal purpose here is to comment on the unidentified and doubtfully identified species. Are they, for instance, errors on the part of Catesby, or do they represent species that once occurred in south-eastern North America?

In the course of conserving the Windsor watercolours during the 1990s, these were removed from the volumes in which they had been bound (McBurney 1997) and in a few cases preparatory pencil or ink sketches were found on the reverse. These were partly discussed by McBurney (1997) and are further discussed here. In the following account, the first number indicates Catesby's published plate number. A prefix 'A' indicates that the plate occurs in the Appendix of Catesby's book. This number is followed by Catesby's original English name and (in the case of identified species) by the current vernacular name and by the current scientific name.

8. Whip-poor Will = Common Nighthawk *Chordeiles minor*. Feduccia (1985) identified this as a composite of two birds, Chuck-will's-widow *Caprimulgus carolinensis* and Common Nighthawk *Chordeiles minor*. The original watercolour is clearly of *C. minor*.
10. The Parrot of Paradise = Unidentified 'Psittacus paradisi' Linnaeus. This is probably the most controversial of Catesby's unidentified birds. It was identified (Salvadori 1891: 316) as a leucistic White-headed [Cuban] Amazon *Amazona leucocephala*. Whilst the total absence of blue pigment in a specimen of the latter would produce a bird not unlike Catesby's, the absence of a white forehead would seem to rule out this identification. Catesby's account implies that he saw the bird alive and, as he was a most careful observer, there can be little doubt of the accuracy of his description: 'Is somewhat less than the common African grey parrot; the bill white, the eyes red; the upper part of the head, neck, back and wings, of a bright yellow, except the quill feathers of the wing, which are white: the neck and breast scarlet, below which is a wide space of yellow; the remainder of the under part of the body scarlet; half way of the under part of the tail, next the rump, red, the rest yellow. All the yellow [plumes*], particularly the back and rump, have the ends of the feathers tinged with red; the feet and claws white . . . It was shot by an Indian on the Island Cuba; and being thus disabled

from flying, he carried it to the Governor of the Havana, who presented it to a Gentlewoman of Carolina, with whom it lived some years, much admired for its uncommonness and beauty.'

* 'Toutes les plumes jaunes' is given in the French text, word omitted in the accompanying English text.

19. Hairy Woodpecker = Hairy Woodpecker *Picoides villosus*. The verso shows a very faint pencil outline sketch of a bird, a probably unidentifiable passerine.
23. Pigeon of Passage = Passenger Pigeon *Ectopistes migratorius*. The verso is inscribed in brown ink (not in Catesby's hand, *vide* McBurney 1997), and reads 'A Virginia Wood Pidgeon comes in / Winter season [*sic*].'
31. Little Thrush = *Unidentified* 'Turdus minimus' Catesby. Thought perhaps to be a poor illustration of a Hermit Thrush *Catharus guttatus* (Allen 1951).
32. Lark = Horned Lark *Eremophila alpestris*. The 'Tit Lark,' another bird appearing on this watercolour but omitted from the published plate, appears to be unidentifiable. The verso appears to be a pencil sketch of the upper figure (i.e. the Horned Lark).
34. Cow-pen bird = female Cowbird *Molothrus* sp. Feduccia (1985) identified this as Brown-headed Cowbird *Molothrus ater*.
35. Little Sparrow = *Unidentified*. The 'Yellow Tit,' omitted from the published plate but appearing on the watercolour, appears to be unidentifiable.
36. Snow-bird = Dark-eyed Junco (lower figure) *Junco hyemalis*. The original watercolour shows both the 'Snow-bird' (Dark-eyed Junco) and the 'Purple Finch' which appear on Pl. 36 and 41 respectively.
44. Painted Finch = Painted Bunting *Passerina ciris*. The original watercolour depicts two birds, both referred to as 'Painted Finch.' Only the upper figure appears in the published plate. The lower figure is not the Painted Bunting and appears to be the same as the 'Blue Linnet' i.e. the Indigo Bunting, which appears on Pl. 45. The verso is a preliminary sketch for Swallow-tailed Kite *Elanoides forficatus*, very similar to an outline of RL 24817.
46. Chatterer = Cedar Waxwing *Bombycilla cedrorum*. The verso seems to be a sketch of seed pods.
50. Yellow Breasted Chat = Yellow-breasted Chat *Icteria virens*. The verso is another sketch of the Swallow-tailed Kite, less complete than that on RL 25875; part of the body has been gone over in pen and ink, but the feet remain in pencil only. There is an inscription which reads 'Houk hoo is the bird.'
54. Little Brown Flycatcher = *Unidentified*? 'Muscicapa fusca' Catesby. Thought perhaps to represent the Least Flycatcher *Empidonax minimus* (Allen 1951). Feduccia (1985) identified it as Eastern Wood Pewee *Contopus virens*.
58. Yellow-rump = *Unidentified* 'Parus uropygio luteo' Catesby. Probably the Yellow-rumped or Myrtle Warbler *Dendroica coronata* (Allen 1951, Feduccia 1985), but is unconfirmed.
60. Hooded Titmouse = Hooded Warbler *Wilsonia citrina*. The verso of RL 25896 (Purple-berried Bay Tree) shows the head and neck of an unidentifiable heron, painted in grey watercolour with a yellow bill and yellow skin around the eye. The neck is very long and snake-like. The eye is black.
61. Pine Creeper = *Unidentified*. This has been thought to represent the Pine Warbler *Dendroica pinus* (Allen 1951) but to me it does not appear identifiable. The watercolour depicts two birds, the unidentifiable lower of which was published on Pl. 61, and the upper (the Yellow-throated Warbler *Dendroica dominica*) on Pl. 62.
64. Finch-Creeper = Parula Warbler *Parula americana*? Allen (1951) stated that this plate only 'probably' represented the Parula Warbler; nevertheless Linnaeus' name (the one current for the species) is based solely on Catesby's plate and description. Though the plate contains some inaccuracies, Catesby's description is reasonably accurate and I am satisfied that this is the species he was attempting to depict.

77. Little White Heron = *Unidentified* '*Ardea alba*.' The original Windsor watercolour appears to be missing, but a pencil sketch of the bird appears on the verso of no. 76 (reproduced by McBurney 1997: 62). The Little White Heron has usually been tentatively identified as a young Little Blue Heron, but the description does not entirely agree. Though depicted with a yellow bill, Catesby states quite clearly that the bill is red, irides yellow and legs and feet green, which does not agree with any heron known from the area. He continued: "I believe they breed in Carolina, but I have never seen any of them in the winter."
78. Brown Bittern = *Unidentified* '*Ardea stellaris*.' This bird was said by Catesby to be smaller than the English Bittern. 'These birds frequent fresh Rivers and Ponds in the upper parts of the Country, remote from the Sea.' Feduccia (1985) tentatively identified it as Yellow-crowned Night Heron *Nyctanassa violacea*.
81. Wood Pelican = Wood Ibis (Wood Stork) *Mycteria americana*. A pencil sketch of the head appears beside the drawing.
84. Red Curlew = Scarlet Ibis *Eudocimus ruber*. This is the only identifiable species depicted by Catesby that does not normally occur in the area. Catesby may have encountered a vagrant. On the other hand, Feduccia (1985) suggested that the bird may formerly have had a broader range than it does now.
87. Booby = Brown Booby *Sula leucogaster*. A pencil sketch of the head with open bill appears beside the drawing.

The verso of 26031 (Mastic Tree) has a pencil sketch of Laughing Gull *Larus atricilla* (RL 25924). The sketch is in exactly the same attitude as the finished drawing. The verso of RL 26032 (Ground Squirrel) shows part of the outline of the Tyrant (RL 25890) but only the foot of the bird is visible (McBurney 1997: 116).

- A2. Razor-billed Blackbird = Ani *Crotophaga* sp. This is a watercolour by George Edwards from a live specimen (possibly then in the Sloane Collection) seen in 1743. Feduccia (1985) identified it as *Crotophaga ani*. The verso shows quite detailed preliminary sketches for this drawing, with several handwritten notes by Edwards of differing dates. The verso was reproduced, and the text of the notes transcribed, by McBurney (1997: 68).
- A3. Yellow&Black Pie = *Unidentified*. This is evidently an oriole of the genus *Icterus*, but does not seem to agree with any extant species. It is closest to the Troupial *Icterus icterus*, but lacks any white in the wings.
- A5. Head of 'the largest crested heron' = *Unidentified*. This is one of the most interesting cases. The bird is known only from Catesby's description. Latham (1785, 3: 85; 1824, 9: 80) and Pennant (1785, 2: 443) gave abridged descriptions based on that of Catesby. Both Latham and Gmelin (1788, 1: 630) treated it as a synonym of the Great Blue Heron *A. herodias*. 'As I did not measure the length of this bird, I can only guess it to be not less than four feet and a half high, when erect. The bill measured almost eight inches from the angle of the mouth to the end of it; and was of a yellowish brown colour behind the eyes; and under the throat of a light brownish yellow. The crest on its head was made up of long narrow brown feathers; the longest being five inches in length, which it could erect and let fall at pleasure. The neck and breast brown, but paler, and spotted on the under part. The rest of the body and legs brown, except the quill feathers; which are black. They feed not only on fish and frogs, but on lizards, efts, etc. They are natives of Virginia.' (Catesby). The plate accompanying Catesby's description depicts only the head and neck of the bird. This shows a large brown heron with the crest set very far back on the head. No one has ever taken this description seriously, despite the general excellence of Catesby's work. Ridgway (1878) remarked scathingly: 'This is either an entirely mythical species, or else the figure and description are drawn from recollection. The figure quoted above is absolutely unlike any known American bird, Heron or Crane, while the description . . . cannot be made to apply to *Ardea herodias*. Although Linnaeus quotes Catesby among his citations under *A. herodias*, his description, which is based on Edwards's *Ardea fusca canadensis*, is perfectly applicable to the adult of *A. herodias*.' Yet there is a perfectly plausible explanation for Catesby's

heron, i.e. that the bird was a species of extremely limited distribution, which has subsequently died out.

- A7. Golden-crowned Kinglet *Regulus* sp. Feduccia (1985) identified it as *Regulus satrapa*.
A8. Storm Petrel = an unidentifiable Hydrobatidae. Feduccia (1985) tentatively identified it as Wilson's Petrel *Oceanites oceanicus*.
A9. Whip-poor-Will = *Unidentified*. Allen (1951) stated: 'This is one of Catesby's poorest plates showing a long-tailed large-footed bird of yellowish brown colour with peculiar hair-like bristles around the bill. The bird, probably dead, was sent to him by a Mr. Clayton of Virginia, and this may account for the poor likeness.' Feduccia (1985) identified it as a composite of the Whip-poor-will *Caprimulgus vociferus* and Common Nighthawk *Chordeiles minor*.

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A complete list of the birds illustrated in Catesby's work *The natural history of Carolina, Florida and the Bahama Islands* and a longer version of the present manuscript is available on request from the author.—THE EDITOR